GAS JOURNAL, JUNE 5, 1946

VOL. 247 98th YEAR No. 4333

RESUSCITATION

WE write this on the eve of Institution week—a high-light before the war in the Gas Industry's yearly activities. In those pre-war days, which seem distant enough now, we were able to do full justice to the proceedings of the Industry's premier professional body. To-day, however, paper is not to be had for the asking, in which respect only a fortnight ago we explained in these columns our current difficulties. Though for the most obvious of reasons our treatment of this year's annual meeting of the Institution cannot in space or compass compare with what we were able to do in the years before World War II we shall do our best to present to our readers a balanced view of what will take place during this week's meeting. The gathering will, we are certain, be highly successful. The programme arranged—we published it in our issue last week—promises this. Both technical fare and the several social functions have been admirably planned, and the meeting as a whole should prove a mental refreshment and at the same time a mental stimulus. And it will certainly give the British Gas Industry the liveliest pleasure to welcome once again, for the first time for many years, Continental and Overseas colleagues from Belgium, Canada, Denmark, France, Holland, Norway, Sweden, Switzerland, and the United States of America. During this June week the International Gas Union is meeting in London, and we echo the hope of the Institution President, Colonel Croft, that not only will the re-institution of this Union be helpful to the Gas Industry as a whole, but that it will further cement and increase the friendships between ourselves and our friends from abroad.

Not that in the circumstances, and in spite of the passage of twelve months and more since the end of the war in the European theatre, we can approach the Institution meeting with the same jubilant spirit as we did in pre-war years. The present industrial picture is of sombre hue and frustration abounds at every turn. The coal situation is grave, graver than ever—and coal is the lifeblood of the Gas Industry. The labour situation as regards both quantity and quality is sadly uneasy. Nationalization is in the air and schemes of reconstruction through this factor and for many other reasons are also largely in the air. Apart from vague terms the Government's policy regarding nationalization of the Gas Industry has not been declared. Perhaps during the Institution meeting the Minister of Fuel and Power will disclose some of the Government's intentions, but we doubt whether Mr. Shinwell will do anything of the kind. The public demand for gas service, never more insistent than at present, remains unsatisfied. So we could elaborate. Our thoughts on the current state of affairs may appear gloomy; we believe them to be factual.

Concerning the Institution meeting itself, however, no gloomy thought enters our mind. We feel that the whole gathering will be surrounded not only by an atmosphere of determination to help in the betterment of conditions and to serve the community to the utmost, but by one of great good-fellowship. We are sure that Colonel Croft, whose Presidential Address we publish *in extenso* on later pages of this issue, will have a very happy meeting which will benefit the Gas Industry directly, and indirectly the public in general.

SUPPLY AND DEMAND

WHATEVER the future may hold by way of change in ownership, the Gas Industry in making its increasing contribution to the national fuel economy must have an adequate supply of plant and appliances, and it is satisfactory to know that that side of the Industry, as represented by the Society of British Gas Industries, is tackling its difficulties with ingenuity and determination. Never was there greater need for such a body, which now even more than before the war, represents all the manufacturers whose main products are for use in the manufacture, distribution, and utilization of gas. The members of the S.B.G.I. have always recognized that while the interests of the supply and of the manufacturing sides of the Industry are in many respects common and there is a strong desire to work in complete harmony, the composition and functions of the bodies representing the supply side differ so fundamentally from those of the Society that it would be very difficult to create an organization which could in all cases represent both satisfactorily. The relationship between the two sides is, in brief, that of buyer and seller, and a solution of the problem of machinery for official co-operation between the national bodies has been found in the setting up of a joint Consultative Committee—purely consultative, with no terms of reference and no executive mandate—to deal on a basis of equal partnership with a number of matters of mutual interest that are within the terms of reference of the Domestic Development Committee on which the Society for some time was represented. The new arrangement not only shows promise for the future within its own sphere but represents the establishment of a precedent for co-operative working of importance to all concerned. The report records that the Society has worked closely with the Institution of Gas Engineers and recalls with satisfaction that it was a Joint Committee of the Institution and the S.B.G.I. which in 1939 first examined the whole question of setting up the Gas Research Board. The cordiality with which manufacturers are received nowadays in the District Associations, and the recent decision of the London Juniors to widen their membership rules so as to embrace the manufacturing side, are indications of the good feeling that exists between buyer and seller. Quite apart from political opinion, the Society has maintained close contact with the various Government Departments responsible for the exercise of control over raw materials and the instruments of production.

The outlook with regard to full production of gas-works plant and gas-using appliances is beset with difficulties. Diversion to war work varied among the Society's sections from 50% or less to 90% or more, and reconversion is proportionately difficult. Demand presses for supplies in every direction. The capacity is there to meet it, but for that capacity to be utilized to the full, first and foremost labour—of the right type—must become available. There are other problems associated with reconversion, the provision of new plant and equipment, acceleration of building and repair work, clearance of redundant plant and materials, but the labour shortage is the principal obstacle. Such appliances as are produced, and they are certainly being produced in increasing volume, are earmarked by high priorities for

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Government-sponsored housing schemes, and the open market is to remain in the queue for some time to come. Export trade has also to be catered for; certain restrictions on export business still remain, however, having regard to the obvious requirements of this country for the production of which at this stage in the transitional period the Society's members are capable. As production is stepped up, increasing exports will result. The report records a welcome relaxation in the amount of paper work involved in dealing with export orders within the field of Government control, but in general there is still an enormous amount of form-filling to be done, and long experience has shown that form-filling does not result in any more cookers; the tendency is in the reverse direction.

Despite all the prevailing difficulties and the uncertainties of the changes that lie ahead, it is anticipated that as 1946 progresses, the products that the Gas Industry and the consuming public look to the Society's members to supply will come forward in increasing quantities. Having regard to the recognized importance which attaches to the supply of components for the housing and rehousing of the population and the maintenance of a great public utility service, the Society's members, it is hoped, will be able to show greater progress this year than many other organized industries.

Victory Parade

The Gas Industry, which certainly did its share in achieving victory and for that reason merits public appreciation, is to be represented in both the mechanized and marching columns for the Victory Parade in London next Saturday. In the mechanized column there will be a gas plant compressor manned by four employees of the Gas Light and Coke Company, and a gas plant blower from the South Eastern region manned by two men from the Tunbridge Wells Gas Company. The Industry's contingent in the marching column, which will be under the command of Mr. R. N. LeFevre, will comprise 49 workers (four women and 45 men) from 29 undertakings as widely scattered as Glasgow, Wandsworth, Belfast, Lea Bridge, Plymouth, Newcastle, Swansea and Cardiff.

Personal

Mr. W. T. DUXBURY, Bromley Cross, formerly Gas & Water Engineer to Atherton District Council, and chief officer of the Fire Brigade, has been awarded the Services Rendered Decoration of the N.F.S.—the blue riband of the movement. Only two such decorations have been presented in Great Britain this year.

* * *

Mr. G. E. H. KEILLOR, Engineer and Manager of the Marple Gas Department, has been appointed Engineer and Manager of the Airdrie Gas Department, and takes up his duties on June 15. During his service at Marple the make of gas has increased by 50% and coke production has doubled. The price of gas has been maintained without increase at 12.4d. per therm, and half-price on the two-part system.

* * *

Mr. ROBERT P. MITCHELL, son of G. P. Mitchell, Managing Director, Worcester New Gas Light Company, has been mentioned in despatches for gallant and distinguished services in Italy, while serving as Lieutenant, Royal Engineers, with the 6th British Armoured Division. On demobilization Mr. Mitchell rejoined the staff of the Woodall-Duckham Vertical Retort & Oven Construction Company Ltd.

* * *

Mr. J. R. W. ALEXANDER, General Manager of the British Gas Council, was presented with an inscribed gold cigarette case at Grosvenor House on May 28 by the officers of Associated Gas and Water Undertakings, Ltd., of which he was formerly General Manager, and of its associated gas, electricity and water undertakings. Previously he had at Reigate been the recipient of a period silver condiment set from the staff of the East Surrey Gas Company, of which he was General Manager.

* * *

Dr. T. HOWARD BUTLER who, as the leader of the representatives appointed by the Association of Tar Distillers, was appointed a Vice-Chairman of the Executive Board in January, and who has occupied the chair since that date owing to the absence through illness of the Chairman, Mr. A. E. Sylvester, has been appointed Chairman of the Board for the current year. Mr. Sylvester has been appointed a Vice-Chairman of the Board, as the leader of the representatives appointed by the British Gas Council.

Mr. W. L. WRIGHT, Accountant and Assistant General Manager of the Cheltenham Gas Company, has been appointed Assistant General Manager of the Sheffield and District Gas Company, and will take up his duties on July 1. Mr. A. L. JENNINGS, Industrial Gas Superintendent of the Derby Gas Light and Coke Company, has been appointed Industrial Gas Engineer, and Mr. J. P. MEDD, Industrial Gas Engineer of the Darlington Gas Department, has been appointed Assistant Industrial Gas Engineer to the Sheffield Company.

* * *

The Honorary Freedom of the Borough of Chesterfield was conferred last week on Alderman GEORGE CLARK, J.P., Chairman and Managing Director of the Bryan Donkin Co., Ltd. By a coincidence the presentation was made on the 70th anniversary of the day on which he became an apprentice to the engineering Industry in London. Alderman Clark recently completed 53 years' service with the Bryan Donkin Co., and retired last November from the Chesterfield Town Council after 35 years' service.

* * *

The Croydon *Co-Partner* records the appointment of Mr. J. M. WEBBER as Chief Engineer of the Company, following the retirement of Mr. Walter Grogono. Mr. Webber, who joined the Company in 1927 as an Assistant Engineer, became Chief Assistant in 1938, and when Mr. Grogono assumed the position of Engineer and General Manager in 1940, he was appointed Deputy Engineer. Mr. Webber is Hon. Secretary and Treasurer of the Southern Association of Gas Engineers and Managers, and is a past Chairman of the Eastern District. The *Co-Partner* also records the appointment of Mr. J. OLDROYD as Assistant Secretary. He joined the Newcastle and Gateshead Gas Company on leaving Cambridge, served in the Army from 1939 until 1945, and returned to Newcastle as Assistant to the Secretary.

1946 "Journal" Directory

In order to keep the Directory information up-to-date the following alterations should be noted:

Page 14.—CAMBORNE. W. J. Burley, *E. M. & S.*

Page 36.—EAST HULL. J. R. Martindale, *E.*, vice B. Stonham.

Page 36.—HUNTINGDON. C. Duncan, *E. & M.*

Page 60.—SEATON, AXMINSTER & DISTRICT. E. S. Buckley, *E. & G. M.*

Page 74.—WESTGATE-ON-SEA. J Thorman, *E. & M.*

Page 135.—SOCIETY OF BRITISH GAS INDUSTRIES. *President: Sir William Larke. Chairman of Council:* A. Watson.

Diary

June 12.—National Benzole Association: Annual General Meeting, Wellington House, Buckingham Gate, S.W.1, 3.45 p.m.

June 12.—Industrial Gas Centres Committee: Gas Industry House, 2 p.m.

June 14.—North of England Gas Managers' Association (Auxiliary Section): Half-yearly Meeting, Stockton-on-Tees, followed by visit to Ashmore, Benson, Pease & Co., Ltd.

June 15.—Scottish Junior Gas Association (Eastern District): Annual Outing, Edinburgh; visit to Ganton Gas Works.

June 15.—London and Southern District Junior Gas Association: Summer Visit to Bournemouth.

June 21.—Waverley Association of Gas Managers: Edinburgh, 10.30 a.m.

June 22.—Manchester and District Junior Gas Association: Ladies' Day. Morning, visit to Lancaster; afternoon, visit to Morecambe.

June 26.—Southern Association of Gas Engineers and Managers: Summer Meeting at Maidstone.

June 29.—Western Junior Gas Association: Summer Meeting, Torquay; Buffet Luncheon, Hollacombe Works, 1 p.m. Inspection of Works, 1.45 p.m. Motor Coach tour over Dartmoor, 2.30 p.m.

July 16.—British Standards Institution Annual General Meeting, Institution of Mechanical Engineers' Storey's Gate, S.W.1, 3.30 p.m. Lord Woolton in the Chair.

Women's Gas Council

The 11th Annual General Meeting of the Women's Gas Council was held at Gas Industry House, on May 28, when the minutes of the last General Meeting were signed by the Chairman, Dowager Lady Nunburnholme. It was with great regret that the Council received the resignation of Miss Wolseley-Lewis from the Chairmanship last year, a position which she had filled since the formation of the W.G.C. in 1935. Miss K. M. Halpin, O.B.E., was unanimously elected Chairman for a period of two years.

It was reported that membership had increased during the year, and one Club had found it necessary to acquire a larger house to meet the increasing membership. A young housewives' Club had been formed primarily to assist in making the best use of the gas appliances in their temporary homes; one town, in fact, had been fortunate enough to set up an excellent demonstration theatre. Negotiations were proceeding for the formation of branches of the W.G.C. in several other towns.

An Information Centre has been set up, through the generosity of Messrs. Ewart & Son, Ltd., who lent their premises in Regent Street for several months to put this scheme into effect in co-operation with the Housing Centre. Miss Ellen Wilkinson, M.P., declared the Centre open on Dec. 4, and wished it every success. The Home Information Centre is undoubtedly meeting a genuine need, and enables the public to obtain free and unbiased information on all subjects connected with home-making. A panel of speakers is being built up to meet the increasing demand for lectures. Some of the subjects already covered are Post-War Homes, The New Gas Kitchens, Food Plans in Peace and War, The Manufacture of Gas, and other subjects.

Lady Egerton proposed the adoption of the Annual Report, saying that the Committee had tremendous opportunity and responsibility. The adoption was carried unanimously.

The Statement of Accounts for the year ending Mar. 31, 1946, were submitted to the members and adopted.

Miss Halpin, O.B.E., proposed the re-election of Lady Nunburnholme as President, but in view of the fact that she had not been well and did not wish to be re-elected, it was suggested that Lady Nunburnholme should act as President until such time as a suitable person could be found to take her place. Miss Halpin said the W.G.C. could not stand the loss of a President so soon after losing their late Chairman, Miss Wolseley-Smith. Mrs. Darcy Braddell seconded the proposal, saying that Lady Nunburnholme was one of the rare Presidents who attended every meeting. Lady Nunburnholme agreed to continue as acting President, adding that when the W.G.C. felt a little more secure, she could retire, and they would be able to elect a President at any suitable moment. Lady Nunburnholme spoke of the Exhibition at Selfridges, opened by Miss Barbara Ward, and hoped that with the aid of such modern gas appliances, women would have more opportunity to work for social service.

The Vice-Presidents were re-elected, with the addition of Mrs. Eric Evans. The Executive Committee had six vacancies, and six names. Miss Willans, O.B.E., and Mrs. Darcy Braddell were co-opted members, and the following ladies were elected to the Committee: Miss Goodby, Mrs. Greenwood, Mrs. Royle, and Mrs. L'Epine Smith. The re-appointment of Messrs. Cash Stone & Co. as Auditors was agreed upon unanimously.

Viscountess Davidson, O.B.E., M.P., followed the business meeting by an address, in which she expressed her pleasure at having the opportunity to be present at the meeting. The W.G.C. stood as a fine example of service to the public. She thought that homes had deteriorated during the war years, and that the fault lay with the parents. It was necessary to inspire people with a real desire for new homes, and it was to be hoped that there would be a great improvement in modern appliances, thus taking a load from the householders' shoulders. Everything possible should be done to help people at the present moment to make their homes as they should be. Viscountess Davidson agreed with Miss Barbara Ward that by using modern gas appliances householders had a chance to offer their services to the country—there was too much of "what can I get from my country?" and not enough of "what can I give to my country?" The report was commented upon, and also the very satisfactory balance sheet enabled the W.G.C. to concentrate on other sides of their work. It is difficult, Viscountess Davidson agreed, to carry on home life and public life, but at no time should home life be sacrificed for public life. She congratulated the W.G.C. on the work of the past eleven years, and, in wishing them good luck, she knew that their work in the future would be of great value to the country.

Miss Wolseley-Lewis proposed a vote of thanks to the speaker, and showed appreciation of the difficulty Viscountess Davidson had in carrying out her work as a Member of Parliament among her other activities.

Leicester City Council is to consider a proposal to spend £380,000 on the carbonizing plant at the Aylestone gas-works. Some of the plant which will be replaced is already 25 years old and there is a considerable amount of work now to be done which was held up owing to the war.

County Meeting at Southend

Seventy-five members of the Southern Association of Gas Engineers and Managers (Eastern District) accepted the invitation of their Chairman, Mr. G. L. Braidwood, to visit Southend for the first post-war County Meeting on May 28. The Gas Light and Coke Company entertained the visitors to luncheon at Garons Center House, and the afternoon was devoted to an inspection of the Southend works.

Mr. BRAIDWOOD, in extending a cordial welcome to Mr. F. M. Birks, Managing Director, and Mr. N. Willsmer, Chief Engineer, recalled that the last County Meeting was at Southall in 1939. He believed the Association had an even more important function to perform in any new régime than in the past, and there were good reasons to be optimistic about the future of the Gas Industry. His own optimism had been reinforced by the recent Paper by Dr. G. E. Foxwell, and he hoped that what Dr. Foxwell had said about the place of the Industry in the national fuel economy would be driven home in the minds of the Government, local authorities, and the general public. Through the Press Officer of the British Gas Council the Paper was to be given wide publicity outside the immediate field of the Industry, and he had been gratified to learn that the Editor of one of the outside trade journals had promised to devote as much space to it as possible.

Mr. F. DAWSON, President-Elect of the main Association, proposed a hearty vote of thanks to the Gas Light and Coke Company, to Mr. H. M. Royle, Engineer of the Southend works, and to the Chairman for inviting the members to Southend.

Mr. J. H. DYDE, Chairman-Elect of the District, seconded the vote of thanks, and said the visit revived in the best style and tradition the things to which they used to look forward in pre-war days.

Mr. F. M. BIRKS, responding, said it was a pleasure to welcome the Association in the name of the Company, particularly as the Chairman of the District was one of their engineers who was connected with a works that was different from all the others in so far as it was the only one not intimately connected with the other 12 by trunk mains. There was a certain amount of interchange of gas between Southend and the London system, but it was not a positive connexion with the other works. Southend had therefore been left very much to itself during the war and during the difficult period that had followed the war. It was significant that during the times last winter when London had to reduce pressures Southend had more than sufficient gas, and sent all it could possibly send through the London service.

Points of special interest during the inspection of the works were the coal unloading system on the works jetty, where special precautions are taken to prevent dust, the resetting of some of the retorts, and the air-borne sealing process being applied to others, the coke plant, experimental work on the development of mixtures for dry purification, the tar dehydration plant, and the benzole plant. The visitors were told that as during the war the Southend area came within the restricted coastal limits and there was considerable evacuation, there was a big decrease in gas output, but sales had improved rapidly since the cessation of hostilities, and in 1945 the output exceeded that of any previous year. There is a possibility of a still further increase with the development of new housing estates and the probable establishment of additional light industries. Southend being essentially a holiday centre, and the works being situated on the sea front, considerable attention has been paid to the preservation of amenities both in the matter of architecture and in the suppression of fume and dust.

After the inspection the visitors returned to Garons Center House for tea, and the signing of the visitors' book ended a very successful day.

Cove & Kilcreggan Gas Department has announced an increase of 1s. per 1,000 cu.ft. in the price of gas, making the new price 11s.

Council Members elected at the annual general meeting of the London and Southern District Junior Gas Association on May 17 were as follows: J. H. C. Bates, T. V. Garrud, H. R. Hart, R. N. LeFevre, W. F. Pritchard, A. H. Savill, F. C. Smith, and C. D. J. Woodall. By error, which we regret, the names of the unelected nominees were included in our report of the meeting in the "JOURNAL" of May 22.

The Fulham Grate, which has caused so much interest of late, is the subject of two new publications produced by the Gas Light and Coke Company. The first, which is in booklet form for distribution to architects, builders, and those concerned with housing, contains a readable and comprehensive description of the various advantages of this design of grate, with the assistance of diagrams, performance curves, &c. The second, a neat leaflet, contains only the most obvious points about the Fulham Grate, such as economy, adaptability, and easy lighting and control. Both these publications are conspicuous for their bright, effective design and lucid text.

Yorkshire Gas Coke Association

The first annual luncheon of the Yorkshire Gas Coke Association was held on May 28, at the Great Northern Station Hotel, Leeds, the Chairman, Mr. G. E. Currier (Bradford) presiding. Dr. E. W. Smith (President of the Institute of Fuel) was the chief guest.

Dr. SMITH proposed "The Yorkshire Gas Coke Association." He said the importance of coke to the fuel industries was shown by the fact that 15% of the total fuel requirements of the country was being supplied by coke in one form or another, so that it loomed large in the strenuous times of scarcity of the present time. The work done during the past five years by those engaged in the development of fuel economy—he thought efficiency was perhaps the better word—was undoubtedly one of the reasons why Ministers had not been let down on promises they had held out as to the future of fuel supplies. Coke had pulled its weight in that direction very materially. The coke drive started very seriously about 1924, with the "GAS JOURNAL" coke competition. The Gas Industry was a two-fuel industry, and he would ask his hearers not to be worried as to whether it was ever going to be a one-fuel industry. He was very much in favour of the work that was going on in connexion with complete gasification, for many reasons; but his considered view was that there was not the slightest likelihood "in our time" of complete gasification, having regard to the factor of production costs. Starting with solid fuel and a 50% efficiency, plus free air, it could be seen that it was not likely there could be complete gasification for town purposes except as a stand-by. With the formation of Coke Associations coke was now coming into its own; yet he would urge that a great deal more attention should be given to that commodity than had been given in the past. There were various coke research committees run under the D.S.I.R.—not under the Gas Research Board—working on coke mainly from the point of view of the coke-oven industry, although the Gas Industry was represented on them and the work was equally applicable to gas-works coke. With all that work going on he personally was astounded that the Gas Research Board had not tackled the supbject of coke, especially having regard to the sale price of coke rendering it the biggest financial return they had. For the successful application of coke to domestic and industrial uses, coke would have to be graded suitably to the equipment in which it was going to be used, and graded carefully. Before that was done it must be as low in ash as possible. The new Coal Board, it was to be hoped, would recognize that whatever might be done in the electrical industry and the steam-raising industries, the industries that must be given the cleanest coal were the coking industry and the Gas Industry, for the sake of the community. It was not a case of dividends or profits but of the welfare of the community, to ask the National Coal Board to realize that the carbonization industries must have, eventually, thoroughly clean coal, light in ash and moisture, and, more important than any other factor, the product must be properly graded.

The CHAIRMAN, who responded, said that the Association represented over 90% of the Yorkshire gas producers—almost 100% of the tonnage, which last year was a record—and he thought it had been of assistance to the Ministry in the programme for better distribution. The Association would be the first to acknowledge also the help of the Ministry, both from Mr. O'Connor in London and from Judge Stewart as Regional Controller. A new development in the Association had been the formation of the Technical Committee which was investigating the preparation and production of coke and enquiring into appliances, and was working in conjunction with the National Committee in that respect. He thought that largely as a result of those efforts appliances for the public for the use of coke would be better than they had been pre-war. One snag was that the ceiling prices for the new houses were rather a hindrance in fitting the most efficient appliances for the consumption of smokeless fuel.

Mr. NORMAN HUDSON (Deputy Chairman), proposed "The Guests," who included His Honour Judge Stewart (North East Regional Controller), Mr. L. O'Connor (Director of Coke, Ministry of Fuel and Power), Dr. J. Johnstone Jervis (Medical Officer of Health, Leeds), Miss C. A. Wooster (Secretary, National Federation of Gas Coke Associations), Mr. J. D. Ashworth and Mr. W. Stephenson (Chairman and Secretary, Lancashire and District Coke Association), Mr. A. Brooks (President, Yorkshire Federation of Coal Merchants' Associations), Mr. W. B. Archer (Chairman, Producers' Joint Committee, Yorkshire Associated Coke Producers), and Mr. W. G. D. Colebrook and Mr. G. Kaye (General Manager and Secretary, Coke Producers' Federation). He hoped that Judge Stewart would take to heart what had been said about the necessity for that section of industry to have good, clean coal and they wished him well in the difficult rôle of Regional Commissioner.

His Honour JUDGE STEWART (Regional Commissioner) responded. He said the country was fortunate during last winter to get through without any very serious shortages, and it was only by the goodwill of the distributors in carrying out the distribution programme and the greatest of care by all. We were to-day in a period when stocks ought to be very materially increased, but in which for one cause or another they were not being increased at the required rate. It was never more urgently necessary that all thinking people should help to instruct the public in general about the critical situation.

Mr. L. O'CONNOR also responded, and spoke in appreciation of the help he had received from the Association in carrying out the coke programme, the object of which was to ensure the fair distribution of available supplies.

Dr. J. JOHNSTONE JERVIS (Medical Officer of Health, Leeds), also responding, said he was glad to hear Dr. Smith dilating on the virtues of coke, for he had been doing that himself for 20 years. The time had come when they should set out with hard faces to stop the burning of raw coal. He believed that position would eventually be forced on the country because of the rate at which reserves of coal were being squandered, otherwise the time would come when the country would have to find other sources of heat and power. He had been impressed on his visit to the recent exhibition in London to see how coke was burnt in the most efficient manner and in most attractive appliances, and he wondered why it was that people did not know more about them and did not have an opportunity of seeing them in actual operation in the provinces.

Mr. C. S. SHAPLEY (Leeds), who also spoke, said he had been informed by Ald. C. Jenkinson, Chairman of the Leeds Housing Committee, that the next 250 houses going up in Leeds would have coke grates.

At the fifth annual meeting of the Association which followed the luncheon the retiring officers were re-elected.

Croydon Co-Partnership

The annual meeting of co-partners of the Croydon Gas Company was held at the Civic Hall, Croydon, on May 27. There was a very large attendance, and Mr. William Cash, J.P., F.C.A. (Chairman of the Company), presided. The Secretary of the Co-Partners' Representatives on the Co-Partnership and Works Joint Committee, Mr. J. L. Bates, referred in his report to the many activities of co-partners during the war. Fine work had been done in the Home Guard and A.R.P., while particular thanks must be extended to those who had packed Red Cross parcels.

Commenting upon the report, Mr. Cash said that the bonus for the past year remained at the rate of 6% and amounted to £15,120—a decrease of £1,618 on the previous year. He announced that the scheme to assist hospitals had kept up its reputation and that since the scheme commenced in 1925 the total payments made to hospitals were £5,081. Contributions to the War Comforts Fund amounted to £5,398, of which half was subscribed by the employees and half by the Company. Savings amounted to £9,357, an increase of £321 upon the previous year. The position with regard to investments was most satisfactory and the nominal amount of stock held by co-partners, annuitants, and the trustees of the fund on behalf of the co-partners is £50,156. The Chairman pointed out that 23% of the money invested was in water undertakings.

Mr. Cash then remarked upon the difficulties under which the Company had laboured during the war, and paid a warm tribute to the staff who had borne the dangers and setbacks so well. In all, 586 employees joined the Services, and of these 262 are still serving, 242 are re-instated, and 27 lost their lives. During the whole war-time period the supply of gas never failed—a fine record.

The war was now over and peace presented a fresh series of difficulties. Of nationalization he could say little as he did not know the basis of compensation. The suggested postponement had been refused, but he did not think nationalization was very imminent. It had been suggested that Croydon should be absorbed into the London area, a suggestion for which he could see no grounds as the price of gas in Croydon compared well with that of other undertakings.

The Chairman then spoke of work carried out for the Company by Mr. Walter Grogono, for whom he wished every happiness in his retirement, and he welcomed Mr. D. V. O'Meara, who succeeded Mr. Grogono as General Manager.

Thanking the Chairman for his good wishes, Mr. O'Meara said the occasion was a particularly happy one as it was the first meeting for seven years. During that time the membership—which at present numbered 934—had been closed to newcomers, but he had the Chairman's assurance that it would be reopened in the near future.

During the meeting Mr. Cash congratulated Mr. P. B. Dodd upon his 50 years' service with the Company and presented to him and to the following employees who had served 25 years the usual long service awards: W. H. Atkins, R. C. Bickmore, E. W. Bundell, R. R. J. Eatwell, A. E. Gambles, S. Hill, H. I. Holland, J. W. Merson, G. L. Ore, W. Proctor, P. Richbell, A. E. Sherman, L. W. H. Snowsill, H. J. Stedman, R. Taylor, G. O. Turner, A. E. Wells, J. Woodward, L. F. Wright.

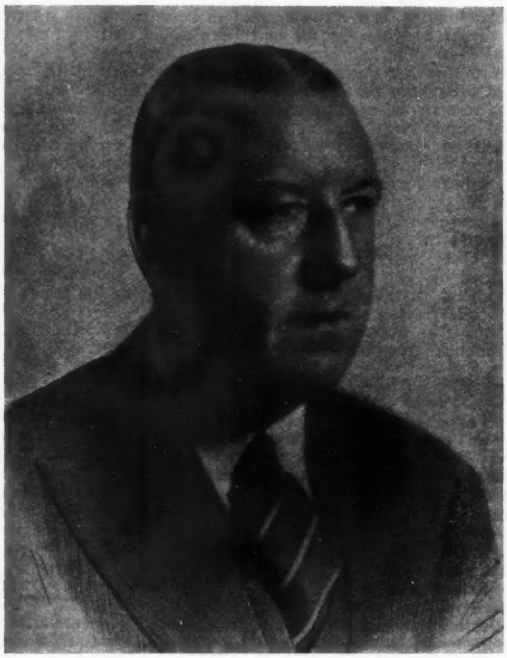
A "Stars in Battledress" concert concluded the evening.

The Institution of Gas Engineers

PRESIDENTIAL ADDRESS*

[I.G.E. Communication No. 293]

By COL. C. M. CROFT,
D.L., J.P., M.Inst.C.E., M.I.Mech.E.
Managing Director, The Wandsworth and District Gas Company



The President.

The first pleasant duty I have in making my Presidential Address is to express to my colleagues of The Institution of Gas Engineers my great appreciation of the confidence they had by making me President.

Very few of those who have not been either a President of the Institution or a member of the Council can conceive the many duties undertaken by the Secretary and staff, ranging as they do from the Gas Research Board, to the provision of pensions for those members of the Institution who, by force of circumstances, are in need of help, and, from personal experience, I must draw the attention of the members to the great efficiency, courtesy and administrative ability of the Secretary, Dr. Braunholtz, the Assistant Secretary and all the staff of the Institution, and I thank them for the happy and helpful assistance they have given me during my year of office.

This is the first occasion for six years on which many members have been able to attend, as they have been either serving in H.M. Forces, or, owing to the difficulties encountered during the time of war, were not able to leave their Undertakings. To these gentlemen and the new members elected during the course of the year we extend a hearty welcome.

The International Gas Union is recommencing its activities, and I have already been to Paris in this connexion.

It is now a matter of the greatest pleasure to us here to-day to be able to welcome, for the first time for several years, our Continental and Overseas colleagues, and we have with us to-day representatives from Belgium, Canada, Denmark, France, Holland, Norway, Sweden, Switzerland and the United States of America.

The International Gas Union is, in fact, meeting in London during the days of our Annual General Meeting, and it is hoped that not only will the reinstitution of this Union be helpful to the Gas Industry as a whole, but will further cement and increase the friendships between ourselves and our friends from abroad.

The War's Aftermath

The war has now been over approximately one year, and, although events have not turned out generally as might have been anticipated, this, nevertheless, seems to be an opportune moment in which to review the present situation and future position of our Industry and the functions of our Institution.

One would have considered it reasonable, with the reduction of armament production, that the use of gas might fall, but, instead of this, the sales of gas for all purposes have increased. This is undoubtedly due, among other things, to the following reasons :—

(1) The scarcity of alternative fuel.
(2) The fact that, generally, people are earning more money than in the past, and have less chance to spend it on luxuries or even the ordinary amenities of life, and are therefore inclined to be extravagant where circumstances permit.
(3) Furthermore, they are installing gas apparatus as it becomes available, on account of its economy of labour and efficiency.

This load has to be met, and, as plant must be provided to meet increasing demand, our position must be consolidated by way of giving such service to the community. Even with other fuels available in the future it could only be due to our own shortcomings that they might revert to any alternative to gas. These conditions apply not only to the domestic, but to the industrial loads.

One of the difficulties in meeting this present boom is, of course, the fact that the existing plant has had to be worked to the full during the war years, without that standard of maintenance which otherwise would have prevailed. Also, that owing to the shortage of materials and skilled labour, and the amount of plant on order, the provision of new plant is now becoming a long-term project, at a time when commodities are, unfortunately, at a very high price. In this latter circumstance I would again emphasize the importance of maintaining the load so that capital expended in these days of near-inflation may continue to earn its own revenue.

It is unfortunate, but none the less true, that Great Britain seems to be recovering from the ravages of the war at a slower rate than the majority of other countries. There is still a great dearth even of the simplest form of domestic apparatus, and that which is forthcoming is of a design established prior to the war, and therefore does not embody those improvements which had been foreshadowed, and which the public has every right to expect. The first year of peace seems to have the same, or even greater difficulties, without the dangers, of the six years of war. The shortage of coal, and in many localities the acute shortage of man-power, make the difficulty of carrying on the supply of gas one of extreme anxiety and hard work. To add to those problems we were afflicted with a severe winter. However, although the situation in London seems to be recovering somewhat slowly, there are indications in the Provinces that the men from the Forces, happily in a very high percentage, are returning to their previous employment, and, with the new intake, are removing one of the major anxieties of those in charge of Gas Undertakings.

There still remains, however, the drastic shortage of coal, which is even more acute now than a year ago. Trying as this must be, it should also provide a greater incentive than ever to effect the greatest economy in the processing of coal.

The Industry and the Future

That the Industry was held of the greatest importance by the Government is proved by the fact that in 1944 a Committee of Enquiry was set up by the then Minister of Fuel and Power under the chairmanship of Mr. Geoffrey Heyworth. The terms of reference were :

> "To review the structure and organization of the Gas Industry, to advise what changes have now become necessary in order to develop and cheapen gas supplies to all types of consumers, and to make recommendations."

The Heyworth Report was duly published, and, briefly, the main recommendations of the Committee are that England, Scotland and Wales should be divided into 10 Regions ; that all existing Undertakings should be taken over compulsorily by Regional Boards, one for each Region ; that each Board should consist of a chairman and six directors ; that independent machinery should be set up to determine the terms of compulsory purchase, and that the capital of the Board should be wholly in fixed interest form guaranteed by the Government.

It may be noted that the Committee's recommendations are based not on any alleged inefficiency of the Industry. Indeed, the Committee express their conviction that "within the limits of the existing structure the Industry to-day is reasonably efficient." Rather, the required change as envisaged by the Committee lies in groupings into larger units, and, for this, the Committee contend "No voluntary process is likely to be suffi-

* Presented at the 82nd Annual Meeting in London on June 4.

ciently speedy to satisfy present and future requirements." The necessity of larger units has been realized and urged for some years past by the Gas Industry.

Other recommendations were also made by the Heyworth Committee regarding (a) the standardization of calorific value, and (b) the limitations in the variations of specific gravity and the control of gas pressures within certain defined limits.

These are matters which are still being considered very seriously by the Committee of the Institution appointed for this purpose, and the views of the Institution on them will be expressed to the appropriate authority.

It is interesting to notice that the Gas Industry, of its own accord, during the war, in order to ensure greater efficiency, divided the country into 12 Regions, and it is a matter of gratification to know that the Regional Gas Engineering Advisory Boards will be maintained for the present, as, not only the Government, but the Industry at large, must realize that a considerable improvement in efficiency generally throughout the Industry has resulted from their formation. It has brought gas engineers in the Regions closer together, and has enabled them to share their troubles and to be of great mutual help and assistance to one another. It would seem difficult to warrant the termination of these Advisory Boards under the present régime.

The Government as yet has made no statement of its views or intentions with regard to the Heyworth Report, and, in these circumstances discussion of it can have only limited use, but, whatever the outcome, and even though we are faced with the possibility of complete nationalization, in other words, the ownership of the Gas Industry by the Government, the duties of gas engineers will not be varied or altered in their fundamental issues by this change, and it will still be their duty to serve the country to the best of their ability, and to see that research and learning on the carbonization of coal is held at a high level, and that any improvements which Science produces will be used immediately to the benefit of the consumer. How, then, does all this affect our Institution and our Industry? It should be remembered that our Institution was founded in 1863 and, as history shows, its endeavours and attainments steadily progressed, increasingly improved, and were available to the nation to such a high extent that, in the year 1929, a Royal Charter was conferred on The Institution of Gas Engineers, which without doubt was a seal of confirmation of the great work that had been done in the past, and further entrustment of greater responsibilities to its members in the future. Our Charter states, among other provisions, that one of the objects of the Institution is "to improve and elevate the technical and general knowledge of persons engaged in or about to engage in the profession of gas engineers, and to test, by examination or otherwise, the competence of such persons." In fact, having regard to the usefulness of our previous activities, we were granted a Charter entrusting us with the duty of training, performing and maintaining at a high level in one of the nation's most valuable services, namely, conservation of coal, coal being, without a doubt, our most valuable national asset, the economical "winning" of which, and then the most economical treatment, must be considered one of the highest public services in the well-being of the country.

The Potential Services of the Institution

The Institution, as such, is not concerned with financial gain, but is a purely professional and non-political organization, entrusted to conserve the great resources of Nature for the benefit of Man. Years of war, and still many more years of extravagance, have had the serious effect of reducing the available coal resources, and, owing to the elementary practice of mining engineering in the past, the most easily "won" coal has been brought to the surface, leaving the more difficult seams still to work, and incurring greater expense to obtain.

It should be remembered that the other public utility services, by virtue of their operations, are unable to process coal with the same efficiency as is obtained in its heat treatment in retorts or coke ovens. For instance, the railways have an efficiency in their locomotives of approximately 13%, and the electricity undertakings 20% to 25%, and it should be noted that the railways use 15 million tons of coal per annum and the electricity companies 23.5 million tons; whereas the Gas Industry, with a carbonizing efficiency of 78% to 82%, is using 21 million tons of coal, and from this are obtained by-products or products which are, and always will be, invaluable and even essential to the nation's existence.

The Industry as an Employer

It should be remembered that for over 100 years the Gas Industry has been considered a good employer, and, indeed of all the industries in the country, perhaps the happiest relationship has existed, and still continues to exist, between the workers and the administrators of our Undertakings. So great is the progress that we are at present experiencing that there is an almost limitless opportunity for fresh blood in the way of entrants. The present engineer and potential engineer should have nothing to fear. Our Institution is therefore concerned with the training of engineers and research workers to meet future requirements.

Financing of Technical, Educational and Research Work

The income of The Institution of Gas Engineers from members' subscriptions alone is sufficient only for it to function in a very limited way as a professional body. Its wider functions in the technical and educational spheres, which are specifically entrusted to it by Royal Charter, would be impossible without the additional income of its Special Purposes Fund. This represents a relatively small portion of the total contributions made by Gas Undertakings to the national bodies (National Gas Council, British Commercial Gas Association and The Institution of Gas Engineers) on the basis of 10s. per million cu.ft. of gas sold. For the sake of convenience, these contributions have been made payable to the National Gas Council, and they have been apportioned to the three national bodies by the joint standing finance committee of representatives of those bodies.

It is true that the sum allocated by the Institution, out of its Special Purposes Fund, to the Gas Research Board has increased considerably in recent years, in view of the Board's rapidly expanding activities, but it would appear appropriate that this machinery should continue, since the Institution is the senior partner, with the Society of British Gas Industries and in collaboration with the Department of Scientific and Industrial Research, in the Gas Research Board—the conduct of research being, after all, essentially a technical matter.

If, therefore, it is agreed that the Institution is the appropriate national body to continue to deal, not only with professional matters, but also with the technical and educational sides of the Gas Industry, it is essential that it should continue to receive, through one channel or another, the income at present allocated, by mutual agreement, to its Special Purposes Fund. It would appear to be illogical and contrary to the interests of the Gas Industry to duplicate this work, or to set up new machinery for carrying it out. The major technical and educational problems in the Gas Industry are nation-wide, and are essentially matters for centralized consideration and advice rather than for independent consideration regionally.

Careers Committee

During the year considerable attention has been paid by your Council in an endeavour to attract into the Industry the class of youths who, by character, physical condition and mental attainments are likely to prove valuable as managers and leaders of the Industry in the future. A book is in the course of preparation dealing with careers in the Gas Industry, and it is hoped that this, when distributed, will bear fruitful results, and attract keen recruits to our Industry.

We, of the Council, hope that all members of the Institution will give every encouragement they can to youths who wish to discuss a career in the Gas Industry, and also make arrangements for the youths to be shown over Gas-Works, and have explanations given to them of the various types of plant and processes. The larger Undertakings in the country will be glad to offer facilities to youths, not only within their own area, but to those referred to them by other members in the Institution whose Works, although very satisfactory, are not of the magnitude to make a definite appeal. It is apparent that the Gas Industry has therefore to strive for ever-increased efficiency in manufacture and distribution and utilization; the intake of new men with suitable qualifications and ability, and continuous improvement of working conditions and welfare.

Working Conditions and Welfare

For generations it has been the habit or custom of families to engage themselves, as a matter of course, in the Industry in which their fathers were employed, and therefore to which they found an easy entry. These recruits have joined not only the Gas Industry but any other industry rather by hereditary tradition than by due consideration to the possibilities of the future and the nature of the work they were undertaking.

The war has undoubtedly altered the general view of the British man. He has either served in the Armed Forces, and so become accustomed to entirely different environments, hardships, and, at the same time changes of scenery and the knowledge of foreign countries of which he hitherto had no knowledge, or has otherwise worked under changed circumstances during the war years. Also, a large part of those who have been engaged in armament production have been employed in factories, modern in construction, and special to the nature of the work they were carrying out. As these factories were often placed in undeveloped parts of the country for strategic reasons, special arrangements were made for their transport, and their feeding in first-class canteens. Thus—and quite rightly—they have come to expect a standard of comfort in the factory and in the canteen hitherto not contemplated. Having once gained experience of this high standard, they would be unwilling to revert to unsatisfactory conditions in working, and it would be a great pity if they had so to do; thus it should be stressed that when designing new plant, extending Works or making arrangements for improvements, consideration must be given to the comfort and welfare of the employees.

The ultimate, and, we hope, not too distant aim, will be that those employed in a Gas-Works will be able to work in white overalls, and complete the spell of work in comparative cleanliness.

Such conditions of employment, by virtue of the fact that they would automatically necessitate a high degree of mechanism, should result in both economic and efficient processing of our raw material.

The Institution, recognizing the necessity of providing training facilities for the rehabilitation of those who have lost, by their service in H.M. Forces, or in other work of national importance, several valuable years, during which they would normally have completed their training and gained much experience, initiated, early in 1945, negotiations with the Ministries of Education and of Labour and National Service for the setting up of appropriate Courses of Intensive Training under the Government's Further Education and Training Scheme.

It is with pleasure that we record that, with the generous collaboration of the Bournemouth Gas and Water Company and the Birmingham Corporation Gas Department, two such Courses have been started, and efforts are being made by the Gas Education Committee to organize further Courses in other centres.

In addition to these Courses, which are available to members of the Industry on a national scale, several of the larger Undertakings, including some of the London Companies, have arranged Courses of training for the rehabilitation of the members of their staffs returning from the Forces. In certain cases it may be possible for these facilities to be extended to the employees of smaller Undertakings not having the necessary resources to establish courses of their own.

When considering the rehabilitation of these men it should also be borne in mind that these men were away in the interests of the Nation, and that when they come back they must be paid in accordance with their age, providing they are trying to get on, rather than their skill. In other words, it is necessary that these men should be given every consideration. No one can give of his best if saddled with financial or domestic worries brought about by no fault of his own, and which might have a lasting effect not only on his character, but also on his progress in the Industry.

Affiliated Associations

The District Associations have again resumed their regular meetings, and many valuable papers have been presented and visits have taken place. The importance of these District Associations cannot be over-estimated, as, not only do they bring an opportunity of renewing friendships, but also provide a meeting-place for the exchange of experiences and improvements in working and other conditions.

In this respect the Junior Associations should be particularly mentioned. It is very apparent how keen these Junior Associations are, judging from the high standard of Papers which are presented regularly at their Meetings. This is comforting to and appreciated by the older engineers, who thus know that those to follow them are taking every step not only to qualify but to exceed in knowledge those in whose footsteps they follow.

Finally, I should like to emphasize that it is a matter of urgent necessity for the Industry to continue and, indeed, intensify its developments both regarding technical achievement and social welfare to the highest possible degree. Whatever the circumstances, it always has been and will forever remain the duty of an engineer to give of his best in the public service.

Harrogate, Yeadon, and Guiseley Centenary

CONCERN at the prospect of nationalization of the Gas Industry was expressed at a dinner at Harrogate, on May 27, held to celebrate the centenary of the Harrogate Gas Company and the Yeadon and Guiseley Gas Company. Among the 150 present were the Lord Mayor of York (Alderman Fred Gaines), the Mayor of Harrogate (Councillor J. S. Tennant, M.A.), Dr. Gerald C. Veale, recently appointed Pro-Chancellor of Leeds University, Colonel W. Moncrieff Carr, O.B.E., T.D., who presided, Lieut.-Col. Hugh S. Duncan, M.D., T.D., Vice-Admiral A. L. Snagge, C.B., Mr. G. Potter-Kirby, Chairman of the York Gas Company, and Councillor A. E. Hudson, Chairman of the Aireborough Urban District Council.

It was on July 4, 1845, that a few prominent Harrogate townspeople gathered in the Somerset Hotel under the chairmanship of Dr. George Kennion "to consider the propriety of forming a company to light Harrogate with gas." A resolution was passed, a committee appointed, and a Bill having gone successfully through Parliament Royal Assent was given to the project. At 5 p.m. on Feb. 22, 1848, the first streets were lighted by gas. But before this accomplishment, the Directors had to fight opposition to their plans. A meeting of ratepayers in October, 1845, passed a resolution to the effect that the Town Commissioners, forerunners of the present-day Town Council, should apply to Parliament for powers similar to those sought by Dr. Kennion and his supporters. The Commissioners did not accept the recommendation, but contented themselves with an attempt, which proved fruitless, to obtain the right to buy the gas undertaking at the end of 10, 15 or 20 years. In May, 1847, it was decided to build the gas-works on the present site at New Park. Such was the demand for gas that in 1863 a further Act was passed to raise the capital of the Company from £10,000 to £37,000 and to extend the supply to the nearby villages of Killinghall and Ripley. Since that time there has been a record of progress equal to that of any gas undertaking in the country. In 1909 their activities extended to an area north of the town, and a small private gas-works run by the late Captain C. S. Greenwood, of Swarcliffe Hall, for the benefit of the inhabitants of the village of Birstwith and of his own estate, was taken over. Between 1925 and 1926 gas companies at Wetherby, Tadcaster, Pateley Bridge, and Boston Spa, were all absorbed, and in 1927 the oldest undertaking in the provinces, that of Knaresborough, came under the Harrogate Company's wing, together with that at Boroughbridge. These developments brought into being the high pressure system of distribution, and all works other than those at New Park were closed. In 1935, the Harrogate Company itself merged into the United Kingdom Gas Corporation, whose Managing Director, Colonel Moncrieff Carr, became Chairman of the Company in 1939 and planned the gas grid scheme. Since 1943 the policy of bringing neighbouring installations under common management has resulted in the formation of the York, Harrogate and District Group of Gas Companies, which was joined last year by the Yeadon, Guiseley and Otley companies.

The toast of "The Harrogate Gas Company" was proposed by Dr. Veale, who referred to its "old age and perennial youth." The march of progress of the town of Harrogate, he said, was linked up with the prosperity and development of the Harrogate Gas Company, and those who had been connected with it could look back upon their efforts with a feeling of great satisfaction. "They had never failed in doing their best for Harrogate and in their duty to the consumers."

Colonel Moncrieff Carr, responding, said that in the ten years since the United Kingdom Corporation became interested in the Harrogate undertaking the expansion had been no less than 47%. The scheme they had in mind involved development of the West Yorkshire Gas Distribution Company, which was only partially linked to Harrogate to-day. They had intended, but for the war, that Harrogate would have taken its supplies from the Gas Distribution Company and that the works at New Park would have become merely a stand-by. "We do not like gas-works within the environs of a town of the very beautiful nature of Harrogate," he said. "It must remain for the time, however, because the war came along and the gas we had made available, and which it was intended to bring to Harrogate, was diverted to other towns." They had made progress, however, and had endeavoured to maintain a high standard of service. They had been able to increase the expert personnel service available for consumer and industrial needs by grouping together the undertakings of York, Harrogate, Yeadon, Guiseley and Otley, under the general direction of Mr. Macdonald.

The Government had decided upon the nationalization of the Industry. What that meant he did not quite know, and he did not believe His Majesty's Government quite knew. The Civil Service were determined they were going to control them, and he had not the slightest doubt they would do so. The great danger lay in the removal of that very healthy competition which had existed between gas, electricity, coal and oil. This had been the great safeguard of the Company. He foresaw great danger in its removal; he foresaw great danger in making the units too big. They looked forward with some trepidation to the future. They were not quite certain what lay ahead, but they did know at the present that they had not been able to get on in the last 12 months as quickly as they would have liked. Proposed nationalization had proved a great hindrance, but that whatever changes came about they would do their utmost to preserve and protect the interests of the consumers.

Lieut.-Col. Duncan, proposing "The Yeadon and Guiseley Gas Company," also commented on the prospect of nationalization, and in reply, Vice-Admiral Snagge said he had no doubt that if that calamity descended upon the Industry, the inevitable result would be creeping paralysis so far as service, quality, and price to the public was concerned. But he was an incurable optimist and found it difficult to believe that the people of this country would stand for long what the present bosses were attempting to put across.

Proposing "Yeadon and Guiseley and Its Industry," Mr. Potter-Kirby said they were proud as a Gas Industry to serve the important woollen industry in the Yeadon and Guiseley district.

Responding, Councillor Hudson said he did not fear nationalization. He felt that out of the maelstrom through which they were passing something good and great would arise.

Manchester District Association of Gas Engineers

THE 76th Annual Meeting of the Manchester and District Association of Gas Engineers was held at the Midland Hotel, Manchester, on April 26, the President, Mr. C. H. Bamber (Rochdale), in the chair. There were about 70 members in attendance. A cordial welcome was extended by the President to Colonel C. M. Croft (President of the Institution of Gas Engineers), Councillor J. Cariss (Chairman of the Bradford Gas Committee), Mr. Geo. P. Mitchell (President of the Midland Association), Mr. A. B. Britton (past-President of the Midland Association), and two honorary members, Sir Frederick West and Mr. Charles Wood, the latter having attained 60 years' membership.

The following new members were welcomed: J. Bateman (Sheffield), E. B. Field (Rotherham), P. Gallagher (Atherton), J. Grayston (Stretford), H. Greenwood (Drakes, Ltd.), A. Harrison (Accrington) and K. Snowdon (Wigan).

Following the adoption of the report and accounts, reports were submitted by the Chairmen of the Lancashire and Yorkshire Commercial Sections.

Work of the Institution Council

Mr. **C. H. Bamber,** as the district member of the Council of the Institution, presented a report of the work done by that body during the year.

Colonel **C. M. Croft** said the investigations concerning the implications of the Heyworth Report were being actively pursued and the Institution would later on make a statement of their views with regard to it to the appropriate authorities. The *ad hoc* Committee appointed to enquire into the problem of coal conservation in the Gas Industry had undertaken a difficult task but they were making much progress. Personally he was particularly interested in the subject of planning careers for boys in the Industry. At the Wandsworth Gas-works many boys had been trained, and in South America one company was entirely managed by men who had been its students. There were also two ex-students in India, and one in South Africa, as well as many in the British Isles who owed their present position to the training they had received at Wandsworth. All the senior staff at Wandsworth had been trained at the works. Many ex-students had gained scholarships at one or other of the universities. During the Easter holidays there had been 14 boys working with the chemists and engineers of the Company, their ages being from 16 to 18 years, and it was hoped that, ultimately, some of them would enter the Industry. A book was being prepared which would outline the advantage of adopting careers in the Gas Industry on both the engineering and chemical aspects. He had himself written a foreword to the book assuring any boy who felt himself attracted to the Industry that he could be certain of receiving every possible help and encouragement from senior officials.

The New President

Mr. **C. H. Bamber** formally inducted the newly-elected President, Mr. Geo. E. Currier (Bradford), into the Chair, and invested him with the Presidential medal and badge. Mr. Bamber referred to the work done by Mr. Currier as Regional Gas Adviser for No. 2 (North-Eastern) Civil Defence Region during the stress of the war period. It was well known that Mr. Currier enjoyed working to promote the interests and status of the Industry.

Mr. **Currier,** in acknowledging the honour, said he would strenuously devote his best energies in the promotion of the interests of the Association and of the Industry generally. Much of the success achieved at the Bradford Gas-works was contributed to by the assistance of a very willing team of staff workers, among whom might be specially mentioned that stalwart supporter, Mr. H. Johnston. It had not been merely a matter of Engineer and Deputy, but really of two men possessing certain abilities working together and interweaving their efforts. He had also received much assistance from Yorkshire Engineers generally in dealing with damage to Gas Undertakings in No. 2 Region as a result of enemy action.

His first duty as President was to speak, on behalf of all the members and himself, in appreciation of and with a deep sense of gratitude for the services rendered to the Association during the past year by Mr. Bamber. They had a pleasant memory of the manner in which they had been received by the Rochdale Gas Committee and their engineer, Mr. Bamber, upon his undertaking the Presidential duties, and they would also recall with the keenest pleasure how Mr. Bamber had displayed a number of films of bygone meetings.

Mr. Bamber was then presented with the past-President's badge, which had been generously provided by Mr. W. P. Smith (Rochdale). It had been originally conferred upon that gentleman's father, Mr. W. J. Smith, when engineer at Bolton, when he was inducted in 1930, and later on would be suitably re-inscribed.

Mr. **Bamber** expressed appreciation of the kindness of his Deputy Engineer in supplying the past-President's badge. It would have very sentimental associations for him because he commenced his career in the Gas Industry under the late Mr. W. J. Smith, and rose to the position of Deputy Engineer after about 14 years' service. They were not merely a Chief Engineer and Deputy, but were great friends. The position had now become reversed and Mr. Smith's son, Mr. W. P. Smith, was now his own Deputy Engineer.

Invitation to Bradford

Councillor **J. Cariss** (Chairman of the Bradford Gas Committee) congratulated Mr. Currier upon his appointment as President. During the course of his engagement with the Bradford undertaking Mr. Currier had proved a thoroughly capable, painstaking and diplomatic administrator of its affairs, and especially so during the war period when dealing with complaints, labour unrest and demands for shorter hours of working. The Bradford Gas Committee extended a cordial welcome to all the members of the Association to visit Bradford on the President's Day in July.

The **President,** on behalf of the Association, accepted the invitation with pleasure and also congratulated Mr. Charles Wood upon attaining his diamond jubilee (60 years) of membership of the Association, and Mr. Fred Bell (Liverpool) upon winning the Silver Medal of the S.B.G.I. for his paper on "Gas Distribution." He then presented his Presidential Address (as published in the "JOURNAL" of May 1 (page 718).

Mr. **T. R. Cook** (Blackpool), proposing a vote of thanks, said it was obvious that Mr. Currier had shown the greatest vision and foresight in carrying out the works which had been undertaken upon the instructions of his Committee. He had certainly avoided the bogey of increasing the net capital indebtedness to a high figure. The figure of £180 per million cu.ft. was very low, having regard to the capital expenditure of £380,000 which Bradford had spent during the past few years. Much keen business acumen had ben displayed. The remarks concerning future trade and development in the Industry should be borne in mind by everyone, and it was to be hoped also that the problem of sulphur removal would be dealt with vigorously. Plant should be designed for the removal of sulphur at much less than present day costs. The President had shown his usual forthrightness in his remarks concerning the Heyworth report and the nationalization or socialization of the Gas Industry. A considerable number of the members might not concur in his views. Personally he (Mr. Cook) thought a long period of years must elapse before nationalization and socialization could be brought into full effect.

Mr. **J. M. McLusky** (Calverley and Horsforth) seconded, stating that in consequence of the advice the Bradford Gas Committee received from their engineer, their undertaking had functioned well during the war period, which was more than could be said of many others.

The **President** suitably responded.

Votes of thanks were accorded to the retiring President, officers and members of the Committee.

A donation of 35 guineas to the Benevolent Fund of the Institution of Gas Engineers was unanimously approved.

To Meet Increased Industrial Demands Falkirk Gas Department is to erect eight new retorts with a capacity of 800,000 cu.ft. daily.

Heywood Gas Department has reduced the price of gas for domestic purposes by 6d. per 1,000 cu.ft. and is introducing from the June quarter a new scale of charges for industrial and other purposes, steam raising, and central heating. The new domestic flat rate will be 4s. 9d. per 1,000 cu.ft. (5s. 1d. for prepayment consumers), with an alternative two-part tariff comprising a fixed charge of 10s. and gas at 3s. 2d. per 1,000 cu.ft. The industrial rate will range from 4s. 9d. for consumptions up to 15,000 cu.ft. per quarter, to 2s. for quarterly consumptions exceeding 1,000,000 cu.ft., and the steam raising and central heating rate will be 2s. 9d. A discount of 2d. per 1,000 cu.ft. will be allowed on all accounts for payment within 14 days.

Meters, Ltd.—In his statement issued with the accounts for the year ended Mar. 31, Mr. J. Morley, Chairman of Meters, Ltd., says the net profit, after making provision for taxation, was £13,976, compared with £28,125 for the previous year. The Ordinary dividend remains at 10%, leaving £13,047 to be carried forward to the next account. The reduction in trading profits is due firstly to the costly process of reverting to normal peacetime production, and secondly to an acute shortage of skilled labour. The balance sheet shows a very strong position; finances are healthy, the total surplus liquid assets standing at £247,841. The subsidiary company continues to expand and develop and has again yielded a good dividend. During the year the subsidiary company moved from Darwen to Bangor, North Wales, where a modern factory was allotted to them by the Board of Trade.

Eastern Association: Question Time at Cambridge

Instead of the usual practice of inviting a member to read a Paper, the Eastern Association of Gas Engineers and Managers introduced "Question Time" at its annual meeting at Cambridge on May 22. From the questions submitted, nine were selected for discussion, but there was only time to cover five of them. Following were the questions, answers, and comments.

Control on Small Works

What instruments and technique of scientific control should be practised in works manufacturing up to 50 million cu.ft. per annum?

Mr. **T. C. Battersby** (Watford and St. Albans) replied that the question really was concerned most closely with the staff available on the works for carrying out tests, caring for the apparatus, and applying the results obtained. The technical control of small undertakings was one of the besetting difficulties of the Industry, and in the case of a works producing 250,000 therms per annum, £250 represented a charge of a farthing per therm on the cost of the gas. It was not suggested that the services of a highly skilled technician could be obtained for that outlay, and he thought the functions of testing must be tied up with the general duties of an assistant to the manager in every aspect of his work. In such circumstances the salary would be related to the wider scope of his duties and responsibilities.

An elaborate system of testing was unnecessary if fundamental knowledge was sound. As regards instruments, he would suggest as essential a good type of approved water flow calorimeter; a calorific value recorder such as the Sigma instrument; a pyrometer for the temperature of settings; a test meter and absorption bottles, &c., for simple gas tests on the works; the standard Referees' H_2S apparatus; and an Orsat apparatus. In view of the recommendations of the Heyworth Committee regarding specific gravity of town gas, he would also include a specific gravity bell, and a stop watch.

As to the work, the calorific value should be determined at least once and preferably twice each day to facilitate the maintenance of steady calorific value. Once a day was sufficient if there was a recorder, and the latter was particularly valuable if producer gas dilution to a standard calorific value was practised. Another regular test that he considered to be essential was that for ammonia at inlet to purifiers. The control of this to a steady figure of not more than five grains per 100 cu.ft. was amply justified by improved oxide purification and the probability that the amount of liquor made could be reduced. The control of air to purifiers so that the town gas did not contain more than 0.4% of oxygen was desirable, and regular tests should be performed and the air added should be metered. This would ensure the elimination of a primary cause of corrosion in services, and the deterioration of meters and fittings, such as arose when the purity of the gas was not under strict control. Incidentally, before the oxygen could be determined in the Orsat apparatus, the CO_2 and unsaturated hydrocarbons must be absorbed. Both these figures were good indications of conditions in the carbonizing plant. Regulation of heats in settings to standard figures by regular observation of temperatures, and control of waste gases by the regulating slides provided would enable better carbonizing conditions to be obtained. Thus, gas yields would be improved and the fuel consumption kept down to the minimum.

Temperatures and Pressures

The observation of temperatures and pressures in different parts of the plant was helpful. Obviously if the water supply for steam raising was hard, a system of control should be instituted and tests carried out at frequent intervals, but there were many methods of water treatment available and methods of control applicable to each. If some water treatment plant was in use it was essential that control should be rigid to ensure good results. It was difficult to cover the subject of the question in the allotted time, but he hoped he had indicated satisfactorily though somewhat broadly the lines on which he would like to see small works operate a system of control. Obviously an enthusiastic assistant would find for himself other subjects which merited attention, such as testing coals if carbonizing results indicated a fall in efficiency, the reason for which might not be apparent in the retort house—checking the moisture content of the coke sold and the sulphur content of the spent oxide, though in the latter case the buyers usually carried out the tests which were necessary.

The manager of a small undertaking was an extremely busy person. His day was fully occupied with the routine of works, district, and his offices, and he could have little time to devote to the details of plant control, which certainly demanded very careful and regular attention. It could not be doubted that he would welcome some addition to his staff, but he feared there was often some difficulty in convincing Directors or Committees that it was really necessary, and that the expenditure could be justified. Perhaps his remarks would be useful in suggesting a line on which the subject might be approached. There was no doubt that close technical control even in the smallest works was advantageous to the undertaking and vital to the Industry as a whole. What had been called "rule of thumb" control at its best could be good, but modern standards called for greater precision, and, let them make no mistake about it, the critics of the Industry often judged them by the efficiency of the small works. Many were excellently managed and reflected a wide and enlightened outlook. They all had the right to expect and were assured that they would receive all the assistance that could be given by the larger undertakings in technical matters, and he would stress that every undertaking should do all that was possible to achieve high technical efficiency. He estimated that the total cost of apparatus enumerated would be about £175. At 5% this represented an interest charge of about £9 per annum. The cost of maintenance should not exceed £10 per annum. Thus the annual charge, including the salary of a young assistant, would not exceed £270 per annum, until he had proved his mettle, when no doubt zeal would receive its reward in the form of an increase in salary.

Mr. **R. A. Weston** (British Gas Light Company, Norwich) said he controlled 14 works varying from 10 to 1,000 million cu.ft. per annum, and while he went a long way with Mr. Battersby

The President, Members, Associates, and Guests of the Eastern Association of Gas Engineers and Managers at the works of the Cambridge University and Town Gas Light Company.

in regard to the 50 million works, he could assure them that on 10 and 20 million works the question of control was a headache. He took it that he was dealing with small works standing on their own. In his opinion the co-operative travelling laboratory was the only means by which control on the very tiny village gas-works could be maintained. The type of personnel on the small works was quite frankly not capable of carrying out all the necessary tests. He felt that if each area adopted the co-operative travelling laboratory—and it would be simplified in the case of a holding company such as his own—it would go a long way towards raising the prestige of the village gas-works.

Mr. **D. B. Parkinson** (British Gas Light Company, London) warmly supported Mr. Weston's suggestion. Mr. Battersby had indicated the type of instruments necessary in the small works, but it was seldom that they could get them to work satisfactorily, and he felt the travelling laboratory was the real solution.

Mr. **Battersby** said he had taken the 50 million works because he appreciated the difficulties, and he suggested that some form of co-operation or co-ordination among the smaller undertakings was necessary. He fully appreciated that there were not the people on the smaller works to carry out the tests, and the travelling laboratory was an answer, but there were still difficulties because the laboratory would have to cover a very wide area and would call only once or perhaps twice a week at the most, and there was a need for more regular tests.

Dry Quenching of Coke

In view of the importance of controlled moisture content of coke and of the large quantities of sensible heat available in coke discharged from horizontal and intermittent retorts, why has the process of dry quenching with waste heat steam recovery not been generally adopted?

Mr. **F. B. Richards** (Chairman, Woodall Duckham Companies), replying to the question, said he thought the short answer was that hitherto the process had not been economically attractive. There were a few facts connected with this subject that he would like to enumerate in order that they might give them their consideration. It was significant that the cradle of waste heat recovery with the generation of steam from coke was Switzerland. The Swiss were situated very unfortunately in the matter of fuel supplies. Providence had given them a fairly abundant water supply, and without expending very large capital sums they had been provided with fairly cheap electricity, but with regard to fuel they had none, except wood. Every ounce of coal had to be imported from a distance. We who lived usually within 50 or 100 miles of a coalfield could hardly conceive of the difficulties of the situation in Switzerland, where their nearest source of coal supply was the Saar, which was perhaps 100 to 150 miles distant. In pre-war days Yorkshire used to contribute quite a large amount to her coal supplies, but the coal had to be carried something like 750 miles. That meant, of course, that coal was dear, and in those circumstances it was natural that their attention should have been focussed upon the problem of obtaining the last ounce of work out of that coal. The problem was tackled first by Sulzer Brothers, a very eminent firm of engineers whose name was known all over the world, and tackled very successfully. They were, as they all knew, two or three methods that could be adopted, but broadly speaking they could be divided into two. There was the big central container attached to the boiler. All the coke from the chambers, or retorts, or coke ovens, was emptied into the container in which, as in a producer, a constant level was maintained at a point below the offtake. Then a fan circulated the gas right through the hot coke, through the boiler, and back again. The other system was evolved later, in which the individual charge—and it was understood that this did not apply to horizontals, because the charge was too small, but with larger charges, as from coke ovens or intermittent chambers—was pushed into the boiler in a suitable skip or container and the door was shut, and again the gases were circulated until the coke was cooled. It has been found that there were certain snags attaching to that process. One, not unnaturally, was that the capital cost was fairly high; another was that the cost of upkeep had in many cases been found to be high. It invoked an added process to be looked after by the works staff, and fairly close control was necessary if it was to be worked safely.

Control of Moisture Content

A point had been raised in the question about control of moisture content, but he personally would question whether dry cooling of coke of the nature they were discussing could really be said to give close control of moisture. It gave them a bone-dry coke, and it was the most difficult thing on earth to put any moisture into that coke afterwards. In the case of Rochester, a very big gas undertaking in New York State, a dry cooling installation was put down because the Eastman Kodak factory was very close to the gas-works, and there were apprehensions as to what might happen if clouds of dust-laden steam were released so near to where delicate films and apparatus were being manufactured. The dry cooling outfit worked excellently, and there was literature available as to the results, both in regard to the cost of installation and maintenance. But the snag was that the coke was so dry that the consumers of the coke complained bitterly of the nuisance they were getting in their premises. That difficulty was overcome by spraying all the coke with a solution of calcium chloride. That had the property of making the surface of the coke permanently more or less moist; the calcium chloride, being hygroscopic, absorbed the moisture, and the nuisance was overcome, but it cost money. Here in this country probably many of them had encountered the difficulty of the dust nuisance, even with continuous verticals, for example, where they were quenching their coke with steam, and not with water, and he thought that was an indication of the need for facing this problem of dust.

There was another effect which attached to dry cooling, and that was that the flexibility of the plant from the point of view of gas making was materially affected. If they had one of the orthodox methods of wet quenching and some little mishap put them out of the straight and they lost a few ovens or retorts, they could speed up and fairly quickly overtake the arrears. With dry cooling they could do nothing of the sort because the time factor was a vital element, and once they had put their coke into the cooling system they must not take it out too soon, or it was not properly cooled. They had an element of rigidity attached to operations which should be as flexible and simple as possible. There was one other factor, and that was where they wished for any reason to under-cook their coke slightly, so as to leave a little more volatile in it. In that respect if they adopted dry cooling they were distinctly handicapped because it had been found very undesirable to put coke into a dry cooling system containing volatile matter. There was a danger of explosion, and that was an important point to be borne in mind; that was another element of rigidity which otherwise would not be present.

Having passed through an era of cheap fuel they seemed to be fairly far advanced in an era of dear fuel, and he thought the same causes were operating as originally turned people's minds in Switzerland in the direction of dry cooling of coke. By this process they could hope to raise something like 800 lb. of steam for every ton of coke, or, translating it into coal, about 500-550 lb. of steam for every ton of coal carbonized. That was a valuable contribution, particularly if they could sell their breeze quite freely at an attractive price in the open market.

Mr. **F. N. Howes** (Chelmsford) said that from his experiences at Burnley he could confirm completely what Mr. Richards had told them. The coke from the plant there was bone dry, and he had to advise one large industrial user to wet or damp the coke before using it. That was one disadvantage, and another was the difficulty of keeping tight the concrete structure. If leaks took place a chimney effect arose, and there was danger of explosion.

Mr. **A. E. Simpson** (Newark) said he thought they should bear in mind a remark by Dr. J. G. King in his recent Paper on waste heat recovery, in which he pointed out that the process was only valuable if they could use the steam when they had raised it. They were possibly getting as much steam as they wanted on the works, and the question whether they could utilize the steam after they had produced it was in his opinion paramount.

Technical Abstracts

Can any steps be taken to prevent the flood of technical papers, which before the war occupied so much of the technical Press, being released again when the paper shortage has been overcome. Many papers are reproduced in extenso *in several journals. Could not comprehensive abstracts be published which would keep the busy executive abreast of latest developments in every field with reference to the full text for those who wished to consult it.*

Mr. **A. H. Silcox** (Editor, *Gas World*) replied that in regard to the first part of the question it would be most helpful if a new standard could be set in presenting technical papers, and if the authors could break away, if only a little, from the terrorizing technical jargon which too often characterised their otherwise valuable contributions and which unnecessarily spun out their length. Some might well remember the story of Mr. Churchill's wrath at being presented with a report that was long winded and inconclusive. He was so incensed that he scrawled in red ink across the documents the comment: "This report is full of cliches, ambiguitites, muddled thinking and incoherence, up with which I will not put." The second part of the question contained an admirable suggestion, but here—so far as the technical Press was concerned—it was a question of time, paper and staff to devote to the work of abstracting summaries of the countless papers that arrived by almost every post on every phase of the Industry. There were twelve senior Associations, eight or nine junior Associations, and numerous salesmen's organizations in addition to the national bodies, all of which had to be catered for in their columns, not forgetting the space which must be devoted to the political influences at work to turn the Industry

upside down and inside out. It would be very helpful if the technical Press could be provided by the authors themselves with a concise and intelligible summary of their papers, which would avoid what so often happened to-day—one or two papers being given in full while others were dismissed in a few lines. Abstracting was a job for an expert, and no-one could better convey in proper context the conclusions deserving close study, than the author himself.

Co-operation of Authors

He would do nothing to damp the ardour of those enthusiasts who devoted so much time and energy to contributing papers. It would indeed be a bad day for the Gas Industry when scientists, chemists and technologists in the great profession of gas engineering ceased to make their individual contributions to the technical literature of the day. It was a sign that science knew no boundaries, political, economic or social, and that all were still free, united and energetically inclined to contribute something to the common pool of knowledge and experience. He felt that the real answer to this question lay in one of the national bodies—such as the Institution of Gas Engineers—taking upon itself the task of examining, selecting and abstracting articles pertaining to the production or manufacture, distribution, transmission, storage, or utilization of gas and related subjects. Issued possibly in monthly or even quarterly volumes, such a work would be of great value to the Industry, particularly if it covered foreign gas papers as well. Certain aspects of this question were discussed in 1941 when the late Mr. Rupert King contributed a short paper to the Institution of Gas Engineers annual meeting on "The Technical Press and the Future of the Gas Industry." On that occasion he had the privilege of contributing to the discussion, and then appealed for the co-operation of the authors of papers in the matter of summarization at the time of submitting them for publication. The war was then at its height, and very few people had the time to devote to the preparations of papers or, even if they had, to add to their labours by providing a *précis*. The matter was again discussed at last year's Institution meeting during "Question-Time," but once again it was a question of waiting upon events in the matter of paper supplies and availability of the necessary staff. Now they had again reached the stage where the flood of technical outpourings, which after all really did reveal the true virility of the Gas Industry, has preceded the paper to accommodate them.

Design of Street Lamps

One hears little about the Gas Industry's plan for post-war public lighting. Does the supply side of the Industry consider that the upright lantern is obsolete and likely to impair the progress of gas lighting? And, if so, should not the manufacturers be advised to cease its manufacture?

Mr. **R. J. Rogers** (Deputy Chairman and Managing Director, Parkinson Stove Co., Ltd.), replying to the question, said while it might be true that very little publicity had been given since the termination of the war to post-war street lighting, he could say that a god deal of attention had been devoted to the subject, not only by the Joint Lighting Committee of the Institution of Gas Engineers, but also by manufacturers of gas street lighting equipment. Unfortunately the shortage of staffs and the difficulty common to most industries of reconverting factories from war to peace production had retarded the progress of both the supply side officials and manufacturers who were handling the problem. There had been a shortage of such equipment as controllers, igniters, and mantles, due to some extent to the demands of the Government that a proportion of output should be allocated for export.

A draft specification for street lighting had recently been prepared to implement the Final Report of the Ministry of Transport Departmental Committee. The Gas Industry was able to meet satisfactorily the requirements of the specification, and in his opinion the efforts of the drafting Committee had resulted in a more equitable specification than in the previous draft.

Need for Advisory Experts

In replying to the second part of the question, he assumed the questioner had in mind the taper shaped lantern. It was true that that type of lantern was very old in design, having been in use for street illumination by oil before the advent of gas lighting. it was fitted with suitable burners and directional reflectors. With Its survival over such a long period had been due to certain undoubted advantages, such as ease of fixing on to an upright column, and its ease of cleaning and maintenance. It could still provide efficient illumination for certain classes of roads provided the advent of new designs of street lighting units, particularly those using electricity, the taper square lantern in the opinion of many people was looked upon as old fashioned, and should be replaced with lanterns of newer design. Certain gas street lantern manufacturers had already decided not to continue the production of taper square lanterns, and to provide an upright lantern of square design fitted with directional reflectors and housing the automatic clock controlled and ignition apparatus within the lantern case.

His opinion was that while the taper square lantern, from a psychological point of view, might be abandoned, the upright lantern as such was not obsolete, and its use was not likely to impair the progress of gas street lighting. In fact, the newly-designed upright square lantern could be adapted to existing columns most economically, and its design enabled improvement in road illumination to be obtained. It was interesting to record that before the war 50% of the total lighting of roads in this country was supplied by gas, and the position to-day had not materially changed. The competitive position with electricity was undoubtedly severe, particularly for certain main road lighting. In his opinion, gas for secondary or side street lighting had a good chance of surviving for many years, provided obsolete systems were scrapped and up-to-date gas lighting units installed. Gas lighting authorities should endeavour to fit specimen street lighting units in their area to demonstrate the modern type of gas lanterns, and not wait until a local council had decided to install some rival system. If the Gas Industry was to maintain its street lighting load in the future it would be necessary to augment the number of illumination advisory experts to ensure that the most up-to-date, efficient, and economical schemes were installed.

Sulphur Removal

The Institution of Gas Engineers has recommended that reduction of total sulphur to less than 10 grains per 100 cu.ft. should be practised by all undertakings. What suitable plant exists for this purpose, and what is the estimated cost of removal in works producing (a) 20 million cu.ft. per annum; (b) 100 million cu.ft., and (c) 1,000 million cu.ft.

Mr. **Bryan Holmes** (Director, W. C. Holmes & Co., Ltd.), in a reply read in his absence by Mr. M. D. Auchterlonie, said gas as sent into the district without debonzolizing might vary in its organic sulphur content between about 10 grains, which was known in works in Scotland, for example, and 50/60 grains, which might occur in horizontal retort gas made from high sulphur slacks. An ordinary benzole plant run to obtain 85/95% of the benzole would reduce those sulphur contents by about 35%, so that a certain proportion of works might obtain the desired result by an ordinary benzole plant. This would apply also to activated carbon benzole recovery run on economical lines. Of the remainder, the vast majority could be brought within the limit by operating an intensive benzole recovery, such as by increasing the oil circulation in proportion according to necessity up to about three times the normal allotment for benzole recovery, or by operating an activated carbon plant with a shorter absorption cycle.

Where the sulphur content was at present higher than 10 grains, and it was not desired to extract any benzole, the sulphur content could be reduced by the catalytic method, which would usually yield a sulphur reduction under those circumstances of 60/80%, which would clearly bring most undertakings under the 10 grain limit. A combination of catalytic sulphur destruction with a modest proportion of benzole recovery would bring practically all undertakings well below the 10 grain limit, and in fact within range of the 3 grain limit which had been later proposed as a desirable target. Particularly in the case of steamed vertical retort gas the conditions were comparatively easy, and a resultant gas of 3 grains was practically certain by these methods. The costs of obtaining these results at the present time might be taken as follows, pence per therm, for an average sort of gas containing about 25 grains per 100 cu.ft. of organic sulphur at the plant inlet:

Output of Undertaking per annum	Normal Benzole Recovery	Intensive Benzole Recovery (No credit for benzole) d. per therm	Catalytic Hydrogenation Plant d. per therm
20 million	Usually	0.25	0.35
100 million	profitable	0.20	0.30
1,000 million		0.17	0.25

These figures were the actual purification costs for organic sulphur, which in the case of the intensive benzole recovery plant were approximately the sum of the increase in the running and capital charges of the intensive plant over those for an ordinary plant, allowing the decrease in value of the benzole produced, owing to its rise in sulphur content. The figure for the catalytic plant could be regarded as being not complicated by possible costs of benzole recovery, and could stand alone as in the case for ordinary sulphuretted hydrogen purification, though actually the full advantages of the catalytic plant, for giving a very low sulphur gas, were only realized if it was working in conjunction with a normal benzole recovery plant which might be expected to be profitable. Summarizing this information, some degree of benzole recovery would meet the requirements for the majority of undertakings. Alternatively, catalytic sulphur removal would give approximately the same results without benzole recovery. A combination of the two methods would give the lowest possible total residual sulphur, which would generally be in the region of three grains per 100 cu.ft.

COMPANY MEETING

Associated Gas and Water Undertakings, Ltd.

The Thirteenth Ordinary General Meeting of Associated Gas and Water Undertakings, Ltd., was held on May 28 at Grosvenor House, Park Lane, W.1, Mr. W. H. Bennett, M.Inst.Gas E., presiding.

The CHAIRMAN, in his statement circulated to stockholders with the report and accounts, said: Before dealing with the accounts for the past financial year, it is my sorrowful duty to refer to the passing of our colleague, Mr. Thomas Carmichael. He joined the Board only a few years ago but during the time he was associated with the Company he gave us, to the full, of his wide experience and wise counsel. He had a charming personality and a modesty which endeared him to all with whom he came into contact. Of no one could it be more truly said

. . . friend of truth! Of soul sincere;
In action faithful, and in honour clear;
Who broke no promise, served no private end;
Who gained no title and who lost no friend.

The Balance Sheet

Only two items in the balance sheet call for any comment. A reduction in our investments in subsidiary companies amounting to £78,676 has been brought about by the sale of certain Preference stocks of a non-voting character. The proceeds have already been partly re-invested in freehold properties which shows an increase of £27,150.

Compared with the previous year, revenue from all sources shows the satisfactory increase of £4,725, whilst expenditure remains at approximately the same figure except in relation to provision for premium on the redemption of our 4% Preference capital and the sums written off investments.

With regard to the first of these items, the sum necessary to be set aside annually to provide the whole amount by the year 1952 was £920. This year £6,400 has been reserved to meet the whole of the remaining liability under this heading, £5,404 from revenue account and the balance from premiums on issue of stock. The amount written off investments and properties this year is £4,368, compared with £1,230 for the previous twelve months.

In making these larger allocations, your Directors have followed a policy of consolidation and conservation with which they feel sure you will fully concur, in view of the uncertainties of the times, especially in regard to the threatened nationalization of gas and electricity undertakings.

Net profits at £64,789 show a further advance of £1,809, and viewed from any angle it may be said that your Company never stood in such a strong financial position as it does to-day.

Nationalization

Last year I expressed the view that the question of nationalization was being brought more and more into the political arena. Since then, an event of major importance has occurred, namely a General Election, and we now have a Government which has indicated a policy of nationalization of industry in general, and amongst those definitely chosen are the gas and electricity supplies, although the Government has not applied the test which the Leader of the House recommended when he said, "it is up to the nationalizers to prove their case that there will be public advantage by nationalization."

I feel that you who have supported the development of these industries, together with the general public, will be interested to hear the views of those who have spent their working lives in this development. I cannot do better than call your attention to the fact that the British Gas Council, the representative body of the whole Gas Industry, has clearly stated that the Industry has not supported and does not support nationalization as an economic principle applicable with advantage to its affairs.

No virile industries, such as can justly be claimed for gas and electricity, could rest content with their present achievements. They have ever been in the front line of progress both technically and commercially.

Your Company, together with similar undertakings operating in other parts of the country, by the very reason of their formation, are typical examples of this progress. Originated for the purpose of bringing about co-ordination of the Gas Industry by the grouping of undertakings and elimination of the uneconomic units, they have given to the general public the advantage of a cheaper and more efficient supply.

The fact that a greater concentration of ownership is necessary does not, however, suggest any reason why the owner should be the State. The *real* fact is that as it does not matter whether the interest on the capital of the Industry is paid out of Government funds or by private enterprise the question turns upon who is likely to run the Industry most efficiently for the public weal.

From 1939 until the present day we have all experienced with ever increasing severity the deadening hand of bureaucratic control. The Gas Industry no less than any other has suffered from this stranglehold, and it has been impossible to embark on many projected schemes as the future is obscured by Government vacillation.

Last year I gave you some remarkable figures as to the progress made by our subsidiaries during the war years. But any further important schemes of integration must await clarification of present uncertainties.

While we agree with the suggestion that the grouping of the Gas Industry is necessary and is in our opinion the fundamental re-organization required, I would point out that this is precisely what we ourselves have been doing over the past 13 years, and we claim that ours is no mean record. I would emphasize that we have carried this out by purely mutual agreement between ourselves and the various concerns we control.

I am convinced, however, that for the more rapid expansion of this grouping and to overcome the parochialism which may hinder its advancement, we should welcome the proposal contained in the report on the planning of the Gas Industry submitted to the Government by the British Gas Council for the establishment of a tribunal which would have compulsory powers to put into force schemes for the extension of this integration in the public interest.

Officers and Staff

On previous occasions well earned tribute has been paid to the work done by the local Directors and Officers of our associated undertakings and also by the Officials at head office. Such satisfactory results as are presented to you to-day could not have been brought about without their loyalty, enthusiasm, and assistance, and I desire to acknowledge our sincere appreciation of their successful efforts in a year of exceptional difficulties.

The report and accounts were unanimously adopted.

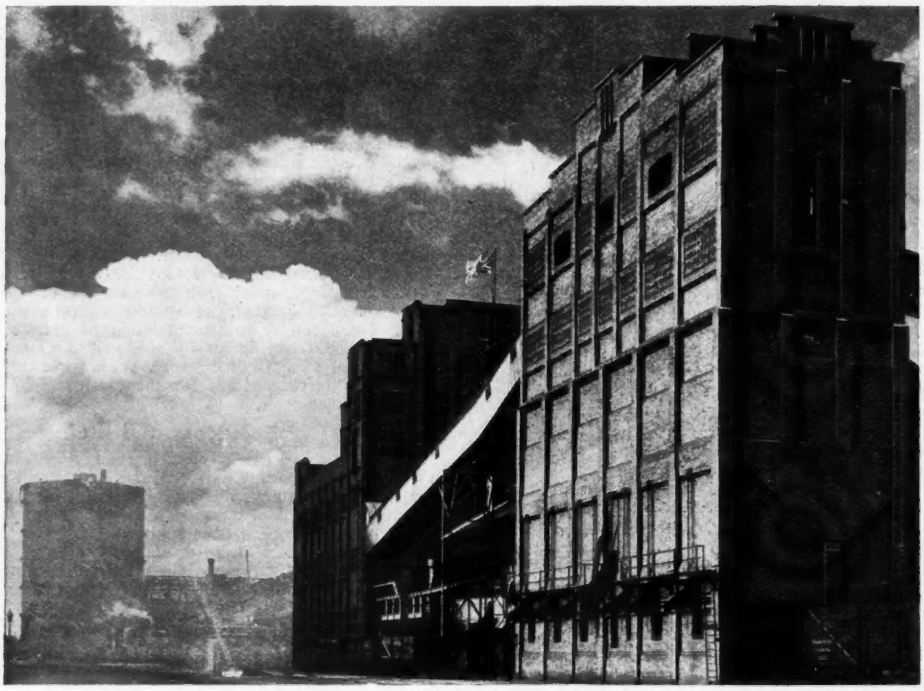
Gas Undertakings' Results

Associated Gas and Water Undertakings.—Total income for the year ended Mar. 31 was £190,101, compared with £185,376 for the previous year. Profits, struck after providing for debenture interest, taxation, completing provision for premium on redemption of 4% preference stock, amounting to £5,404 (against £950), and writing £4,368 (against £1,230) off investments and properties, totalled £64,789, compared with £62,980. After payment of the usual dividends of 5% on the Ordinary and 6% on the Deferred capital, the sum carried forward, £32,500, remains the same as that brought in. The carry forward and reserve fund for equalization of dividends, totalling £57,500, is equal to approximately 4½ years' net dividend on the deferred stock.

Peterborough Gas Company.—At the annual meeting, on May 21, the Directors reported that dividends of 5% per annum on the New Preference "A" shares and 7½% on the Consolidated Ordinary stock, both less tax, were paid in November for the half-year ended Sept. 30. Payment of dividends at the same rates was recommended for the past half-year, leaving a balance of £9,418 on profit and loss account. In December, 4% Debenture stock, totalling £63,287, was sold and realized £63,843. The Chairman said the past year had been one of consolidation as opposed to the previous few years, during which the works had been largely reconstructed.

South Midland Gas Corporation.—Profit for the year ended Mar. 31 was £5,141, against £5,851 for the previous year, making with the balance brought forward a total of £7,134 available for appropriation. At the annual meeting on May 20 a final dividend of 3% was declared, making 6% for the year, as against 5½% for the previous year, leaving £1,695 to be carried forward.

Tunbridge Wells Gas Company.—Net revenue for 1945, after providing for debenture interest and all other expenses and co-partnership bonus, amounted to £10,269, which, with the balance brought forward, making a total of £33,322. Dividends have been declared at the rate of 5% on the Maximum stock and 7½% on the Sliding Scale stock, leaving £23,609 to be carried forward. Gas sales last year were 7% more than in 1944, and 30% above the 1938 level. In his statement issued with the accounts, Mr. A. E. Sylvester, Chairman, said the provision of extra plant had become urgent, and an application had been made to the Ministry of Fuel and Power for sanction to install new boiler plant and reconstruct the old part of the retort house, at an estimated cost of £130,000. Even when the scheme is approved a difficulty still remains, since the expenditure cannot be fully productive for some years, and as yet no assurance can be obtained that full compensation will be received for such expenditure if the Gas Industry is nationalized. Without such an assurance it is most difficult, said Mr. Sylvester, for gas undertakings at the present time to undertake any schemes of long term development. During last year the South Eastern Gas Corporation obtained control of the Wadhurst Company, and by extending the mains of the Tunbridge Wells Company for a distance of two miles it was possible to give the Wadhurst area a partial supply of gas in bulk towards the end of the year. Since January the Wadhurst works has been closed down and a full supply has been taken from Tunbridge Wells.

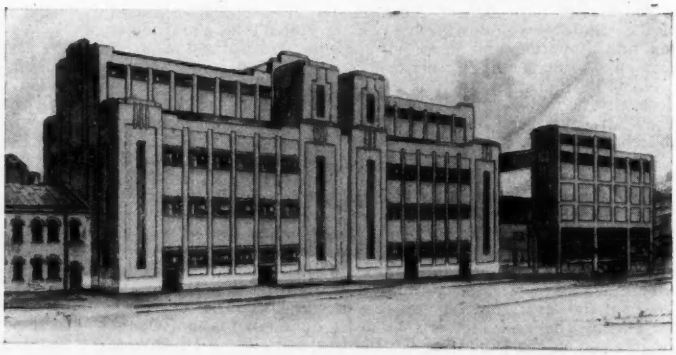


GLOVER-WEST *Vertical Retorts at* COVENTRY

"It is no longer considered necessary that the buildings housing Gas Works plant should be of a purely utilitarian character. For comparatively little extra expenditure it is possible for these buildings to be of such a character as to maintain and even raise the prestige of the Gas Industry in the eyes of the consumer and of the public as a whole."

COMMUNICATION No. 230—PROCEEDINGS OF THE INSTITUTION OF GAS ENGINEERS, 1939-40.

In this photograph of the fourth Installation of Glover-West Vertical Retorts at the Foleshill Works, Coventry, the coke storage hoppers with screening plant above are seen in the foreground. The retort house lies to the left. Space between is reserved for the duplication of the carbonizing plant. The project for the complete installation is sketched below.



West's Gas Improvement Co., Ltd.

Miles Platting, MANCHESTER 10

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Telegrams: Stoker, Manchester.

London Office:
COLUMBIA HOUSE, ALDWYCH, W.C.2.

Telephone: Holborn 4108-9.
Telegrams: WESGASCO, ESTRAND.

GAS PRODUCTS PRICES

The London Market

June 3.

Prices of the majority of Coal Tar products are controlled either by Government Order or by agreements.

The following are controlled by Government Orders:—

Road tar, 5¼d. per gallon filled into buyers' tanks at sellers' works, with corresponding prices delivered and supplied in packages. The price sprayed direct on to roads is controlled by agreement at 8½d. per gallon for full tanks loads in London and adjacent counties.

Creosote for hydrogenation is based on 5.875d. per gallon and creosote for timber preservation on 5½d. per gallon *ex* sellers' works, with the usual extras for different qualities, packages, &c.

The basic price for cresylic acid is 3s. 6d. to 5s. per gallon, according to grade.

Hot pressed naphthalene costs £11 11s. in bulk *ex* distillers' works. Prices for refined naphthalene vary from £20 15s. per ton for crystal on 50-ton contracts to £26 15s. per ton for ball and flake. These prices are delivered England and Wales in 2-cwt. bags, minimum 4-ton lots.

Coal tar naphtha, 1s. 11d. to 2s. 11d. per gallon maximum. Xylol, 3s. 3½d. to 3s. 6d. per gallon delivered buyers' address in minimum 1,000-gallon lots in bulk. Pure toluene, 3s, 2¼d. per gallon in bulk *ex* sellers' works.

Controlled by agreements:—Pitch for briquetting, 70s. per ton *ex* sellers' works in bulk. Phenol, 9½d. to 11½d. per lb. in large returnable drums delivered buyers' address, according to quantity.

The Provinces

June 3.

Average prices of gas-works products: Pitch, 70s. per ton; toluole, naked, North, 90's, 2s. 4d. to 2s. 6½d. per gallon; pure, 3s. 2¼d. Prices for carbolic acid 60's, anthracene, creosote oil (hydrogenation), coal tar oils (timber preservation, &c.), and strained anthracene oil are controlled by S. R. & O. 1943, 1538, and for naphthalene by S. R. & O. 1944, 1051. Prices for road tar were increased by a half-penny per gallon by S. R. & O. 1945, 229, under which Order there was also an increase of 5s. per ton in the price for standard creosote-pitch mixture.

The bulk of the pitch produced in this country is required for home trade purposes, but certain quantities are being sent at higher prices to Allied countries with the approval of the Coal Tar Control. So far as creosote is concerned the bulk is required for essential purposes, at controlled prices. With regard to hydrocarbon oils, the prices remain fixed, although there is more freedom than was previously the case.

Scotland

June 1.

There is a steady flow of enquiries in all sections, and most products are in very short supply. Refined tar*: Yield to the Distillers is 5d. per gallon *ex* Works, naked. Creosote oil: Timber preserving quality,* 5½d. to 6¼d. per gallon; hydrogenation oil,* 5⅞d. per gallon; low gravity or virgin oil†, 7¼d. to 7½d. per gallon; benzol absorbing oil*, 6½d. to 8d. per gallon. Refined cresylic acid* is 3s. 6d. to 4s. 6d. per gallon, *ex* Works, naked, according to quality. Crude naphtha†: 7d. to 8d. per gallon. Solvent naphtha:* Basic maximum prices delivered in bulk, 90/160 grade, 2s. 10d. per gallon, and 90/190 heavy naphtha, Unrectified, 2s. 0½d. per gallon; Rectified, 2s. 4d. per gallon. Pyridine†: 90/160 grade, 13s. per gallon, and 90/140 grade, 15s. per gallon.

* Price controlled. † Uncontrolled.

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